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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,446	03/04/2002	Shunichi Sekiguchi	2565-0244P	4677
2292	7590	08/09/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			LE, VU	
PO BOX 747			ART UNIT	
FALLS CHURCH, VA 22040-0747			PAPER NUMBER	
			2613	

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/086,446

Applicant(s)

SEKIGUCHI ET AL.

Examiner

Vu Le

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

2. Applicants' arguments, see Reply, filed July 12, 2005, with respect to the rejection(s) of claim(s) 19-21, 23-26, 28-30 under 102(e) and of claim(s) 22, 27 under 103(a) have been fully considered and are persuasive with respect to the arguments that Nakaya '259 lacks the functional details of the video decoder (2) or the details of the encoded bitstream that is input to the video decoder. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Nakaya, US Pub 2004/0125875.

Information Disclosure Statement

3. In the latest Reply of July 12, 2005, applicants note that the IDS of March 4, 2002 has not been considered, therefore a duplicate copy of the IDS and references are being filed concurrently for consideration. It is noted that the duplicate copy of the IDS is not on file. However, the copies of the references are on file as originally filed on March 4, 2002. Although the examiner believes these references are of no relevance to the current invention as claimed since they are not even in the same field of endeavor, for the sake of having applicants resubmit the IDS, the examiner will cite them in the attached PTO-892 of this Office Action. Applicants are invited to review these references because they pertain to biotechnology subject matter, not particularly relevant to the subject matter as currently disclosed and claimed.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in: (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent; or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English.

5. Claims 19, 24-25, 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakaya, US Pub 2004/0125875.

Re claim 19, Nakaya et al discloses a video decoder for decoding an encoded bitstream of video data (fig. 2, Note: the “prior art” decoder is modified by replacing element 211 with element 1700 of fig. 17-this reflects the modified decoder in Nakaya, also, a software implemented decoder is illustrated in fig. 7, for details, see para. 0063-0066), comprising:

a motion compensation unit (fig. 17) for calculating a position for a sample image portion with a motion vector in the bitstream (202 is the motion vector in the bitstream, see para. 0053-0056 for details), and rounding the calculated position with a rounding information (fig. 17: 1704, see para. 0056 for details), the rounding information indicating accuracy for rounding and being decoded from the bitstream (fig. 17:1704, also para. 0053-0056; In the cited segments, the rounding information indicates the accuracy for rounding as claimed, and it is being decoded from the bitstream as claimed); and

an image reconstruction unit for reconstructing a decoded image portion of the video data from the sample image portion (fig. 2: 207, the decoded image portion is output from 207, see para. 0015 for details).

Re claims 24, 30, "wherein the encoded bitstream is formatted by MPEG video format" (see para. 0046).

Claim 25 is a method for decoding a bitstream of video data that directly corresponds to the decoder of claim 19 above. Hence, claim 25 has been analyzed and rejected w/r to claim 19 above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 20-23, 26, 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakaya '875 as applied to claim 19 above, and further in view of Nakaya et al, US 5,963,259.

Re claim 20, Nakaya '875 fails to explicitly disclose "wherein the motion compensation unit employs plural motion vectors to transform a reference portion into a transformed image portion as the reference image portion" as claimed. However, Nakaya et al '259 does (see fig. 12, col. 14, line 4-67). It is noted that Nakaya in Nakaya et al '259 is the same inventor as Nakaya '875, and the subject matter of image synthesizing disclosed in both references are substantially the same. Nakaya et al '259

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however, provides more details of image synthesis of the predicted image that involves plural motion vectors to transform a reference portion into a transformed image portion as the reference image portion as claimed. Hence, Nakaya et al '259 is evidenced that Nakaya '875 would have involved plural motion vectors in the same manner as claimed.

Re claim 21, the video decoder according to claim 20, wherein the motion compensation unit magnifies the reference image portion based on the motion parameters to produce the sample image portion (see Nakaya et al '259, fig. 12, col. 14, lines 25-67).

Re claim 23, the video decoder according to claim 19, wherein the rounding information indicates one of half-pel precision and quarter-pel precision (see Nakaya et al '259, col. 14, lines 4-23, Note: the rounding information $1/d1$ and $1/d2$, wherein $d1$ and $d2$ are positive integers, indicate that half-pel and quarter-pel precision are included).

Re claim 26, the claim has been analyzed and rejected w/r to claim 20 above.

Re claim 28, the claim has been analyzed and rejected w/r to claim 21 above.

Re claim 29, the claim has been analyzed and rejected w/r to claim 23 above.

8. Claims 22, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakaya '875 in view of Nakaya et al '259 and further in view of Ota et al, US 6,236,682.

Re claims 22 & 27, Nakaya '875 and Nakaya et al '259 fail to disclose the motion compensation unit rotates the reference image portion based on the motion parameters to produce the sample image portion, and the step for calculating calculates the sample

position for each pel so that the calculated sample positions are rotated with respected to positions of pels in the decoded image as claimed.

Ota et al makes it well known of motion compensation which carries out the step for calculating the sample position of the reference image for each pel so that the calculated sample positions are rotated with respected to positions of pels in the decoded image. In other words, motion compensation that rotates the reference image portion based on the motion parameters to produce the sample image portion. (fig. 1: 112,114, col. 6, lines 1-54).

Therefore, taking the combined teaching of Nakaya '875, Nakaya et al '259 and Ota et al as a whole, it would have been obvious to implement motion compensation that takes into account rotation movement of an image for the benefit of more accurate motion prediction when an image includes both linear and rotational motions (see Ota et al, col. 2, lines 25-40, lines 62-65, col. 3, lines 19-26).

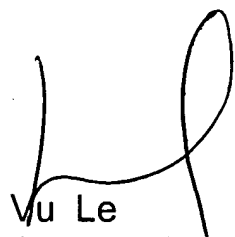
Contact

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vu Le whose telephone number is (571) 272-7332. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. Customer Service can be reached at (571) 272-2600. The fax number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Vu Le', with a large loop at the end of the line.

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